

#14  
AB  
04/17/97

### **INPUT SET: S16854.raw**

**This Raw Listing contains the General Information Section and up to the first 5 pages.**

## **SEQUENCE LISTING**

**RAW SEQUENCE LISTING  
PATENT APPLICATION US/08/591,447**

**DATE:** 04/10/97  
**TIME:** 08:30:48

**INPUT SET: S16854.raw**

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47 (D) TOPOLOGY: linear
48
49 (ii) MOLECULE TYPE: DNA (genomic)
50
51 (vi) ORIGINAL SOURCE:
52 (A) ORGANISM: Neisseria meningitidis
53 (B) STRAIN: IM2169
54
55 (ix) FEATURE:
56 (A) NAME/KEY: sig_peptide
57 (B) LOCATION: 60..119
58
59 (ix) FEATURE:
60 (A) NAME/KEY: mat_peptide
61 (B) LOCATION: 120..2192
62
63 (ix) FEATURE:
64 (A) NAME/KEY: CDS
65 (B) LOCATION: 60..2192
66
67 (ix) FEATURE:
68 (A) NAME/KEY: misc_feature
69 (B) LOCATION: 120..1154
70
71 (ix) FEATURE:
72 (A) NAME/KEY: misc_feature
73 (B) LOCATION: 1155..1748
74
75 (ix) FEATURE:
76 (A) NAME/KEY: misc_feature
77 (B) LOCATION: 1749..2192
78
79 (ix) FEATURE:
80 (A) NAME/KEY: misc_binding
81 (B) LOCATION: 237..1169
82
83
84 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:
85
86 ATTTGTTAAA AATAAAATAAA ATAATAATCC TTATCATTCT TTAATTGAAT TGGGTTTAT 59
87
88 ATG AAC AAT CCA TTG GTA AAT CAG GCT GCT ATG GTG CTG CCT GTG TTT 107
89 Met Asn Asn Pro Leu Val Asn Gln Ala Ala Met Val Leu Pro Val Phe
90 -20 -15 -10 -5
91
92 TTG TTG AGT GCC TGT CTG GGC GGC GGC AGT TTC GAT CTT GAT TCT 155
93 Leu Leu Ser Ala Cys Leu Gly Gly Gly Ser Phe Asp Leu Asp Ser
94 1 5 10
95
96 GTC GAT ACC GAA GCC CCG CGT CCC GCG CCA AAG TAT CAA GAT GTT TCT 203
97 Val Asp Thr Glu Ala Pro Arg Pro Ala Pro Lys Tyr Gln Asp Val Ser
98 15 20 25
99

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**RAW SEQUENCE LISTING  
PATENT APPLICATION US/08/591,447**

DATE: 04/10/97  
TIME: 08:30:50

**INPUT SET: S16854.raw**

100	TCC GAA AAA CCG CAA GCC CAA AAA GAC CAA GGC GGA TAC GGT TTT GCG	251
101	Ser Glu Lys Pro Gln Ala Gln Lys Asp Gln Gly Gly Tyr Gly Phe Ala	
102	30 35 40	
103		
104	ATG AGG TTG AAA CGG AGG AAT TGG TAT CCG GGG GCA GAA GAA AGC GAG	299
105	Met Arg Leu Lys Arg Arg Asn Trp Tyr Pro Gly Ala Glu Glu Ser Glu	
106	45 50 55 60	
107		
108		
109		
110	GTT AAA CTG AAC GAG AGT GAT TGG GAG GCG ACG GGA TTG CCG ACA AAA	347
111	Val Lys Leu Asn Glu Ser Asp Trp Glu Ala Thr Gly Leu Pro Thr Lys	
112	65 70 75	
113		
114	CCC AAG GAA CTT CCT AAA CGG CAA AAA TCG GTT ATT GAA AAA GTA GAA	395
115	Pro Lys Glu Leu Pro Lys Arg Gln Lys Ser Val Ile Glu Lys Val Glu	
116	80 85 90	
117		
118	ACA GAC GGC GAC AGC GAT ATT TAT TCT TCC CCC TAT CTC ACA CCA TCA	443
119	Thr Asp Gly Asp Ser Asp Ile Tyr Ser Ser Pro Tyr Leu Thr Pro Ser	
120	95 100 105	
121		
122	AAC CAT CAA AAC GGC AGC GCT GGC AAC GGT GTA AAT CAA CCT AAA AAT	491
123	Asn His Gln Asn Gly Ser Ala Gly Asn Gly Val Asn Gln Pro Lys Asn	
124	110 115 120	
125		
126	CAG GCA ACA GGT CAC GAA AAT TTC CAA TAT GTT TAT TCC GGT TGG TTT	539
127	Gln Ala Thr Gly His Glu Asn Phe Gln Tyr Val Tyr Ser Gly Trp Phe	
128	125 130 135 140	
129		
130	TAT AAA CAT GCA GCG AGT GAA AAA GAT TTC AGT AAC AAA AAA ATT AAG	587
131	Tyr Lys His Ala Ala Ser Glu Lys Asp Phe Ser Asn Lys Lys Ile Lys	
132	145 150 155	
133		
134	TCA GGC GAC GAT GGT TAT ATC TTC TAT CAC GGT GAA AAA CCT TCC CGA	635
135	Ser Gly Asp Asp Gly Tyr Ile Phe Tyr His Gly Glu Lys Pro Ser Arg	
136	160 165 170	
137		
138	CAA CTT CCT GCT TCT GGA AAA GTT ATC TAC AAA GGT GTG TGG CAT TTT	683
139	Gln Leu Pro Ala Ser Gly Lys Val Ile Tyr Lys Gly Val Trp His Phe	
140	175 180 185	
141		
142	GTA ACC GAT ACA AAA AAG GGT CAA GAT TTT CGT GAA ATT ATC CAG CCT	731
143	Val Thr Asp Thr Lys Lys Gly Gln Asp Phe Arg Glu Ile Ile Gln Pro	
144	190 195 200	
145		
146	TCA AAA AAA CAA GGC GAC AGG TAT AGC GGA TTT TCT GGT GAT GGC AGC	779
147	Ser Lys Lys Gln Gly Asp Arg Tyr Ser Gly Phe Ser Gly Asp Gly Ser	
148	205 210 215 220	
149		
150	GAA GAA TAT TCC AAC AAA AAC GAA TCC ACG CTG AAA GAT GAT CAC GAG	827
151	Glu Glu Tyr Ser Asn Lys Asn Glu Ser Thr Leu Lys Asp Asp His Glu	
152	225 230 235	

**RAW SEQUENCE LISTING  
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DATE: 04/10/97  
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**INPUT SET: S16854.raw**

153	GGT TAT GGT TTT ACC TCG AAT TTA GAA GTG GAT TTC GGC AAT AAG AAA	875
154	Gly Tyr Gly Phe Thr Ser Asn Leu Glu Val Asp Phe Gly Asn Lys Lys	
155	240 245 250	
157		
158	TTG ACG GGT AAA TTA ATA CGC AAT AAT GCG AGC CTA AAT AAT AAT ACT	923
159	Leu Thr Gly Lys Leu Ile Arg Asn Asn Ala Ser Leu Asn Asn Asn Thr	
160	255 260 265	
161		
162		
163		
164		
165	AAT AAT GAC AAA CAT ACC ACC CAA TAC TAC AGC CTT GAT GCA CAA ATA	971
166	Asn Asn Asp Lys His Thr Thr Gln Tyr Tyr Ser Leu Asp Ala Gln Ile	
167	270 275 280	
168		
169	ACA GGC AAC CGC TTC AAC GGC ACG GCA ACG GCA ACT GAC AAA AAA GAG	1019
170	Thr Gly Asn Arg Phe Asn Gly Thr Ala Thr Ala Thr Asp Lys Lys Glu	
171	285 290 295 300	
172		
173	AAT GAA ACC AAA CTA CAT CCC TTT GTT TCC GAC TCG TCT TCT TTG AGC	1067
174	Asn Glu Thr Lys Leu His Pro Phe Val Ser Asp Ser Ser Ser Leu Ser	
175	305 310 315	
176		
177	GGC GGC TTT TTC GGC CCG CAG GGT GAG GAA TTG GGT TTC CGC TTT TTG	1115
178	Gly Gly Phe Phe Gly Pro Gln Gly Glu Glu Leu Gly Phe Arg Phe Leu	
179	320 325 330	
180		
181	AGC GAC GAT CAA AAA GTT GCC GTT GTC GGC AGC GCG AAA ACC AAA GAC	1163
182	Ser Asp Asp Gln Lys Val Ala Val Val Gly Ser Ala Lys Thr Lys Asp	
183	335 340 345	
184		
185	AAA CTG GAA AAT GGC GCG GCG GCT TCA GGC AGC ACA GGT GCG GCA GCA	1211
186	Lys Leu Glu Asn Gly Ala Ala Ser Gly Ser Thr Gly Ala Ala Ala	
187	350 355 360	
188		
189	TCG GGC GGT GCG GCA GGC ACG TCG TCT GAA AAC AGT AAG CTG ACC ACG	1259
190	Ser Gly Gly Ala Ala Gly Thr Ser Ser Glu Asn Ser Lys Leu Thr Thr	
191	365 370 375 380	
192		
193	GTT TTG GAT GCG GTT GAA TTG ACA CTA AAC GAC AAG AAA ATC AAA AAT	1307
194	Val Leu Asp Ala Val Glu Leu Thr Leu Asn Asp Lys Lys Ile Lys Asn	
195	385 390 395	
196		
197	CTC GAC AAC TTC AGC AAT GCC GCC CAA CTG GTT GTC GAC GGC ATT ATG	1355
198	Leu Asp Asn Phe Ser Asn Ala Ala Gln Leu Val Val Asp Gly Ile Met	
199	400 405 410	
200		
201	ATT CCG CTC CTG CCC AAG GAT TCC GAA AGC GGG AAC ACT CAG GCA GAT	1403
202	Ile Pro Leu Leu Pro Lys Asp Ser Glu Ser Gly Asn Thr Gln Ala Asp	
203	415 420 425	
204		
205	AAA GGT AAA AAC GGC GGA ACA GAA TTT ACC CGC AAA TTT GAA CAC ACG	1451

**RAW SEQUENCE LISTING  
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206	Lys	Gly	Lys	Asn	Gly	Gly	Thr	Glu	Phe	Thr	Arg	Lys	Phe	Glu	His	Thr	
207			430				435				440						
208																	
209	CCG	GAA	AGT	GAT	AAA	AAA	GAC	GCC	CAA	GCA	GGT	ACG	CAG	ACG	AAT	GGG	1499
210	Pro	Glu	Ser	Asp	Lys	Lys	Asp	Ala	Gln	Ala	Gly	Thr	Gln	Thr	Asn	Gly	
211		445					450				455				460		
212																	
213	GCG	CAA	ACC	GCT	TCA	AAT	ACG	GCA	GGT	GAT	ACC	AAT	GGC	AAA	ACA	AAA	1547
214	Ala	Gln	Thr	Ala	Ser	Asn	Thr	Ala	Gly	Asp	Thr	Asn	Gly	Thr	Lys		
215							465			470				475			
216																	
217																	
218																	
219																	
220	ACC	TAT	GAA	GTC	GAA	GTC	TGC	TGT	TCC	AAC	CTC	AAT	TAT	CTG	AAA	TAC	1595
221	Thr	Tyr	Glu	Val	Glu	Val	Cys	Cys	Ser	Asn	Leu	Asn	Tyr	Leu	Lys	Tyr	
222			480					485				490					
223																	
224	GGA	ATG	TTG	ACG	CGC	AAA	AAC	AGC	AAG	TCC	GCG	ATG	CAG	GCA	GGA	GGA	1643
225	Gly	Met	Leu	Thr	Arg	Lys	Asn	Ser	Lys	Ser	Ala	Met	Gln	Ala	Gly	Gly	
226			495					500				505					
227																	
228	AAC	AGT	AGT	CAA	GCT	GAT	GCT	AAA	ACG	GAA	CAA	GTT	GAA	CAA	AGT	ATG	1691
229	Asn	Ser	Ser	Gln	Ala	Asp	Ala	Lys	Thr	Glu	Gln	Val	Glu	Gln	Ser	Met	
230			510					515				520					
231																	
232	TTC	CTC	CAA	GGC	GAG	CGT	ACC	GAT	GAA	AAA	GAG	ATT	CCA	ACC	GAC	CAA	1739
233	Phe	Leu	Gln	Gly	Glu	Arg	Thr	Asp	Glu	Lys	Glu	Ile	Pro	Thr	Asp	Gln	
234			525					530			535			540			
235																	
236	AAC	GTC	GTT	TAT	CGG	GGG	TCT	TGG	TAC	GGG	CAT	ATT	GCC	AAC	GGC	ACA	1787
237	Asn	Val	Val	Tyr	Arg	Gly	Ser	Trp	Tyr	Gly	His	Ile	Ala	Asn	Gly	Thr	
238							545			550			555				
239																	
240	AGC	TGG	AGC	GGC	AAT	GCT	TCT	GAT	AAA	GAG	GGC	GGC	AAC	AGG	GGC	GAA	1835
241	Ser	Trp	Ser	Gly	Asn	Ala	Ser	Asp	Lys	Glu	Gly	Gly	Asn	Arg	Ala	Glu	
242							560			565			570				
243																	
244	TTT	ACT	GTG	AAT	TTT	GCC	GAT	AAA	AAA	ATT	ACC	GGC	AAG	TTA	ACC	GCT	1883
245	Phe	Thr	Val	Asn	Phe	Ala	Asp	Lys	Lys	Ile	Thr	Gly	Lys	Leu	Thr	Ala	
246			575					580			585						
247																	
248	GAA	AAC	AGG	CAG	GCG	CAA	ACC	TTT	ACC	ATT	GAG	GGA	ATG	ATT	CAG	GGC	1931
249	Glu	Asn	Arg	Gln	Ala	Gln	Thr	Phe	Thr	Ile	Glu	Gly	Met	Ile	Gln	Gly	
250			590					595			600						
251																	
252	AAC	GGC	TTT	GAA	GGT	ACG	GCG	AAA	ACT	GCT	GAG	TCA	GGT	TTT	GAT	CTC	1979
253	Asn	Gly	Phe	Glu	Gly	Thr	Ala	Lys	Thr	Ala	Glu	Ser	Gly	Phe	Asp	Leu	
254			605					610			615			620			
255																	
256	GAT	CAA	AAA	AAT	ACC	ACC	CGC	ACG	CCT	AAG	GCA	TAT	ATC	ACA	GAT	GCC	2027
257	Asp	Gln	Lys	Asn	Thr	Thr	Arg	Thr	Pro	Lys	Ala	Tyr	Ile	Thr	Asp	Ala	
258							625			630			635				

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**SEQUENCE VERIFICATION REPORT**  
PATENT APPLICATION **US/08/591,447**

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***INPUT SET: S16854.raw***

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Error

Original Text